

Laboratory Safety and Quality in Primary Care: Evidence and Evolution

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**The Robert Graham Center:
Policy Studies in Family Practice and Primary
Care**

Overview of Presentation

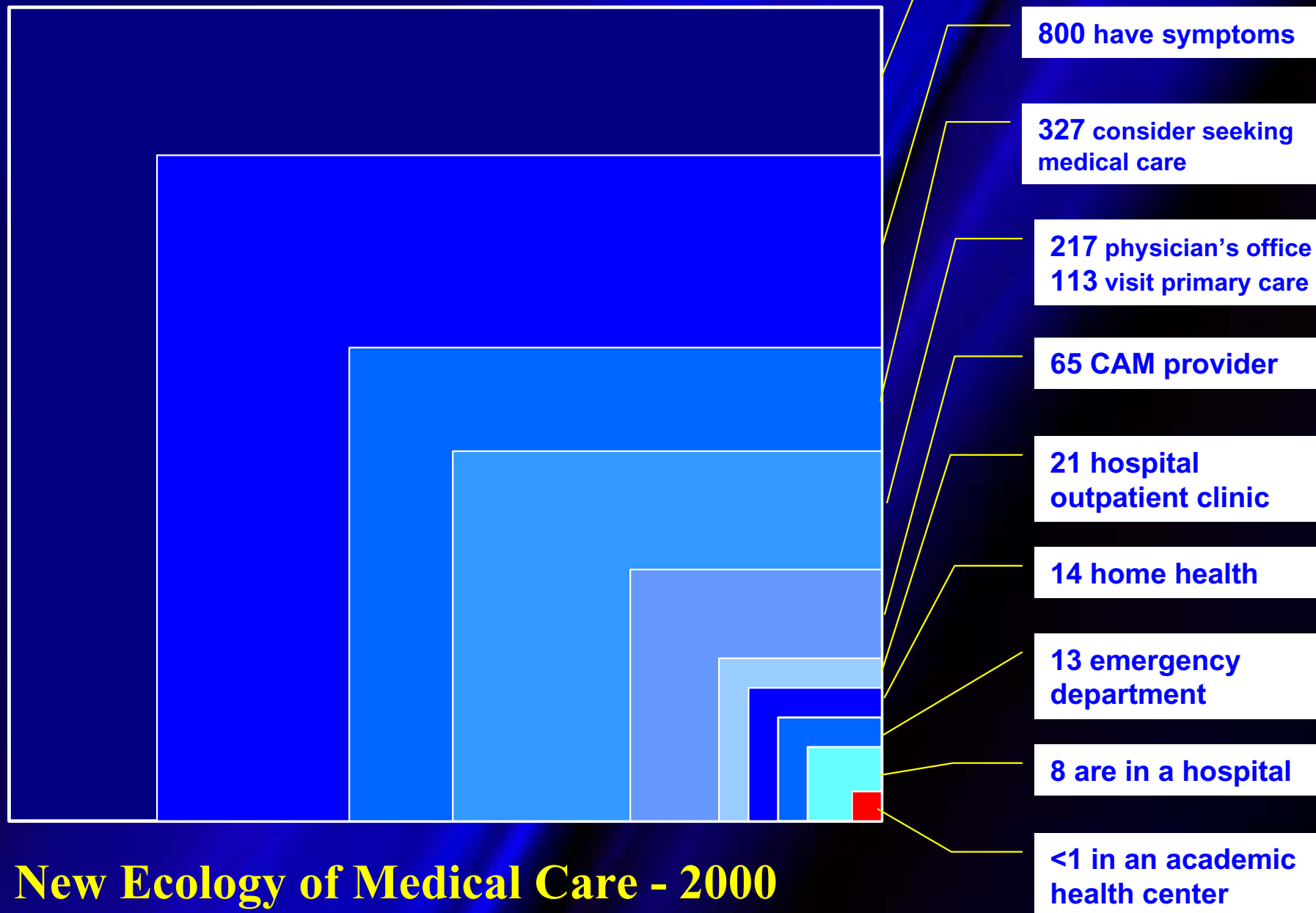
- Why Primary Care
- Existing evidence from primary care
- Two studies of medical errors in primary care
- Current Studies
- The AAFP Quality Improvement Engine

Reason 1:

Because most people receive most healthcare in primary care settings

Green LA, Fryer GE, Yawn BP, Lanier D, Dovey SM.
The Ecology of Medical Care Revisited.
N Eng J Med 2001; 344(26): 2021-5.

In an average month:



New Ecology of Medical Care - 2000

Reason 2:

Because of the breadth of scope and complexity of issues in primary care

Of 932 ICD codes in **5.2 billion primary care** office visits from 1980-1999 (NAMCS):

Family Physicians – 721 codes (77.4%)

General Internists – 705 codes (75.6%)

Pediatricians - 537 codes (57.6%)

–By the way, about 1billion patients had lab tests done in these visits

Reason 3: Primary Care and Usual Care

- In 1996, 82% of Americans had a usual source of health care and of these, 56% regarded an individual as that source.
- 62% identified a family physician
- 16% identified an internist
- 15% identified a pediatrician
- 8% identified someone else.

Priority Health Conditions

- Heart disease
- Stroke
- Hypertension
- Diabetes
- Cancer
- Emphysema and Chronic Bronchitis
- Asthma
- Anxiety/Depression

Usual Source of Care and Priority Conditions

- For people,
- Suffering from one of these priority conditions,
- With a physician as a usual source of care,
- **Who do they name as their doctor?**

When People Have a Physician as a Usual Source of Care

Condition	Fam Med	G Int Med	G Peds	Others
ASCVD	56%	31%	0.0%	14%
Stroke	56%	34%	0.9%	9%
High BP	63%	28%	0.2%	8%
DM	67%	23%	0.6%	10%
Cancer	60%	26%	2.3%	11%

When People Have a Physician as a Usual Source of Care

Condition	Fam Med	G Int Med	G Peds	Others
COPD	62%	22%	5.4%	11%
Asthma	58%	15%	20.8 %	6%
Anxiety/ Depression	62%	20%	7.0%	11%

So What?

- *Primary Care doctors are taking care of a lot of people, including folks who are really sick with our country's priority health problems.*
- *And, they do lots of tests!*

Existing Evidence

Existing Evidence

- Two studies looked how well primary care physicians/clinics are able to
 - Track tests until results are received
 - Notify patients of results
 - Document notification
 - Recommend follow-up for abnormal results

Existing Evidence

- Tracking results
 - Henry Ford Health System survey
 - nearly 1/3 tracking was fair or poor at best
 - Oklahoma Physician Research Network survey/audit
 - < than 20% had effective tracking

Existing Evidence

- Notifying patients
 - Henry Ford
 - 28% notified patients of normal
 - 36% not doing it well for *abnormal*
 - Oklahoma Network
 - 43% had an effective notification mechanism

Existing Evidence

- Documenting results notification
 - Henry Ford
 - 85% said they documented patient notification all or most of the time
 - Oklahoma Network
 - 43% documented notification

Existing Evidence

- Abnormal result follow-up
 - Henry Ford
 - 25% reported effective tracking mechanism to follow-up abnormal
 - Oklahoma Network
 - 13% effective patient follow-up tracking

Existing Evidence

- Audits of Oklahoma practices failed at tracking 5-15% of the time
- >50% lacked notification documentation
- 40% of charts lacked documentation of abnormal follow-up
- Most failed patient-contact attempts had no subsequent attempt
- Beyond 4 steps, test results not on charts 15% of the time

Existing Evidence

- Ambulatory Sentinel Practice Network Study
PA Nutting, DS Main, PM Fischer et al. Problems in laboratory testing in primary care. JAMA 1996 275: 635-9.
- 49 practices, 180 problems, 6 month period
1 in 4 affected patient care.
- best estimate = 3.4 per 1000 visits
(bandolier analysis)



"Either this is the wrong chart or—let's just hope this is the wrong chart."

The two studies

Dr. Susan Dovey PI

1. The National PBRN Patient Safety study in 2000.

42 U.S. Family Physicians

343 reports (330 errors)

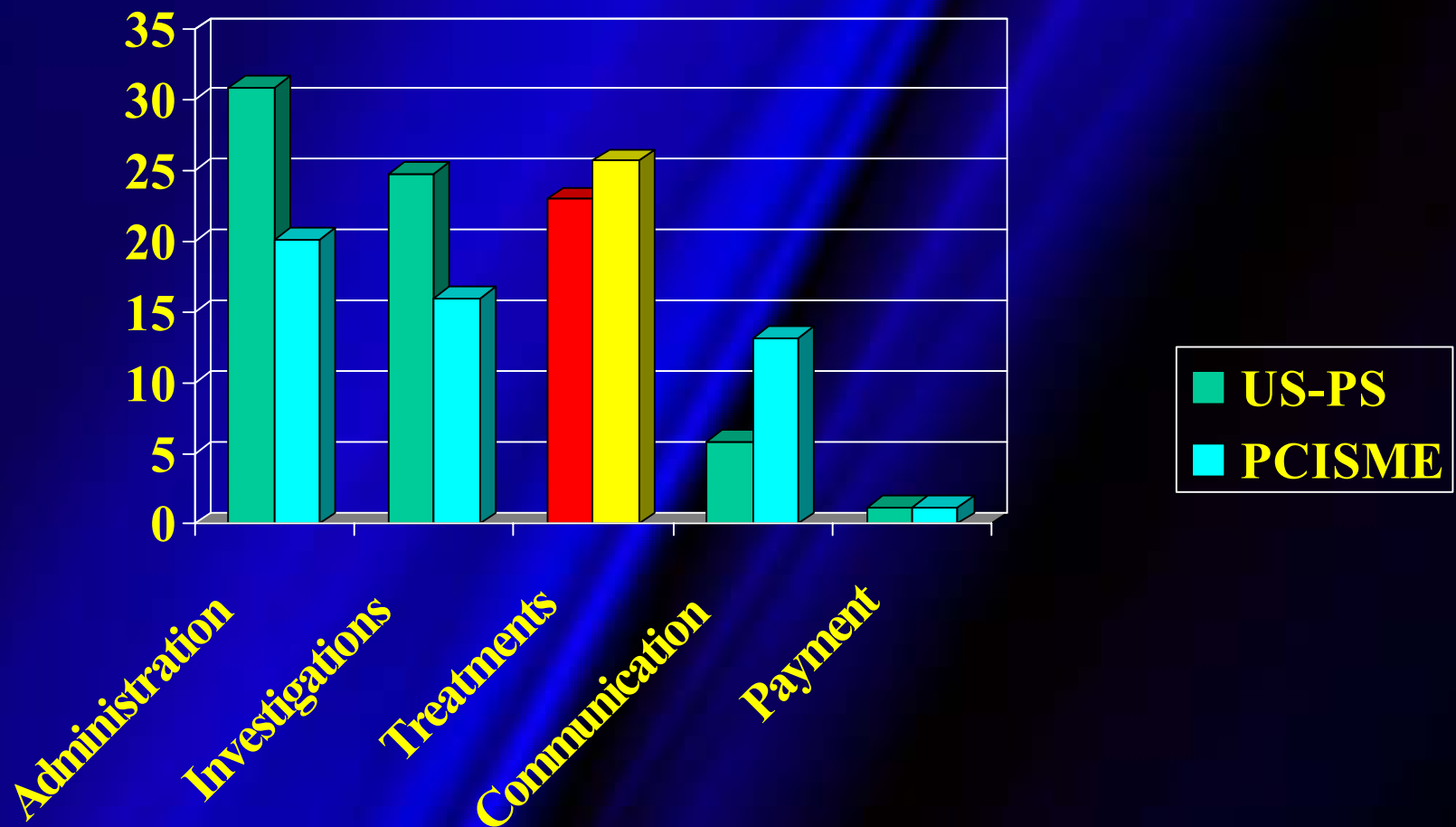
2. The Primary Care International Study of Medical Errors in 2001

80 Family Physicians and General Practitioners in 6 countries

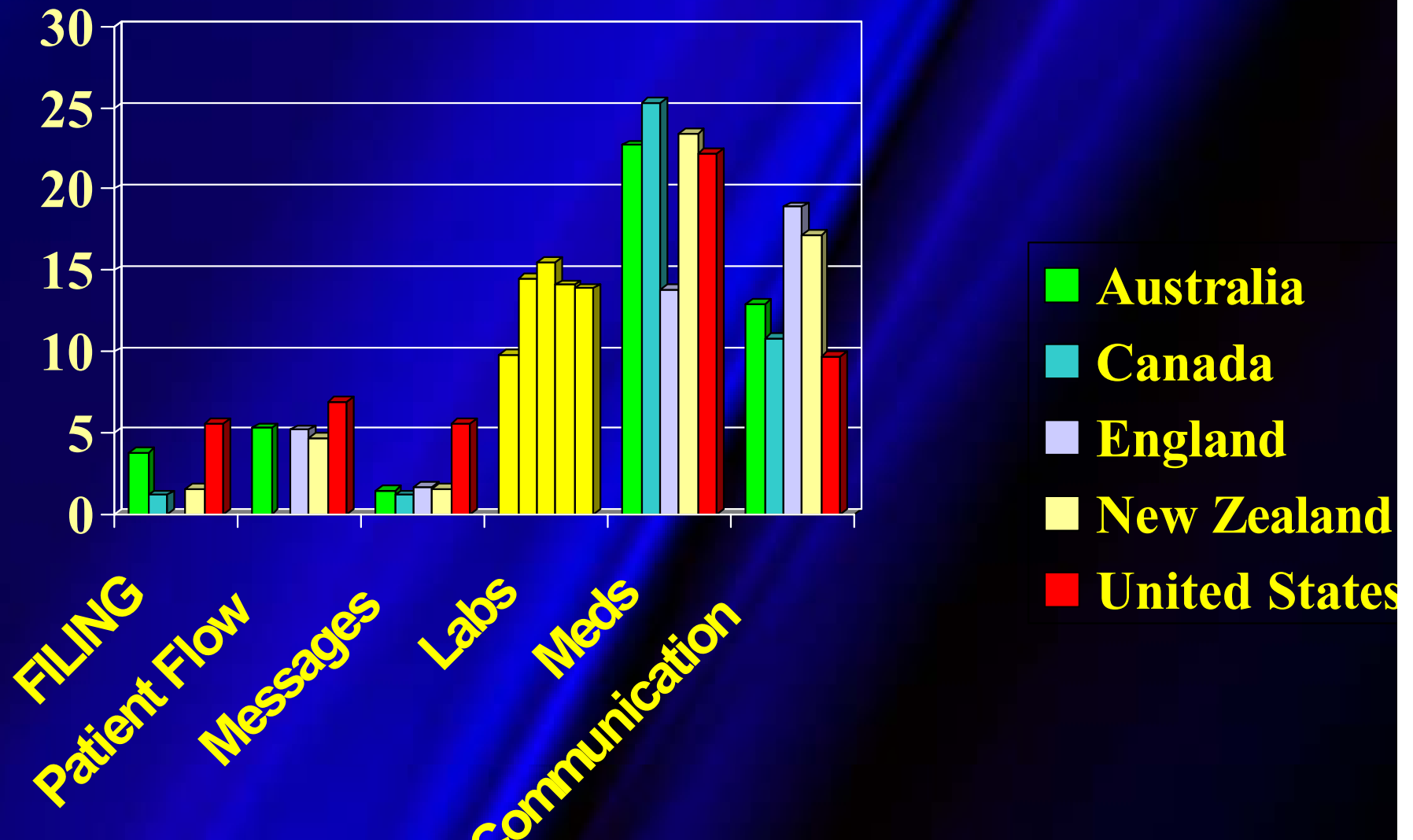
436 reports (430 errors)

The Big Problem Areas:

1. Systems Problems



How does the U.S. Stack Up?



Common and Serious Problems

	Canada	England	NZ	US
Chart completeness				
Lab problems				
Patient Flow				
Ignoring standard practice				
Communication w other dr				
Message handling				
Wrong treatment decision				

What sort of harm?

- Patient dies
- Patient suffered a serious health event requiring hospital admission
- Delayed diagnosis and treatment
- Patient or others at increased risk of harm
- Patient lost trust in physician/medicine
- Patient financial, time, and other costs
- Physician/pharmacy/etc financial, time, and other costs
- Health system overuse

Key Messages

- Medical errors happen commonly in primary care settings
- Errors reported by physicians are predominantly Administrative (SYSTEM) Errors
- Medical errors in primary care may seem trivial, but:
 - cost time, money, and resources
 - hurt and sometimes kill patients

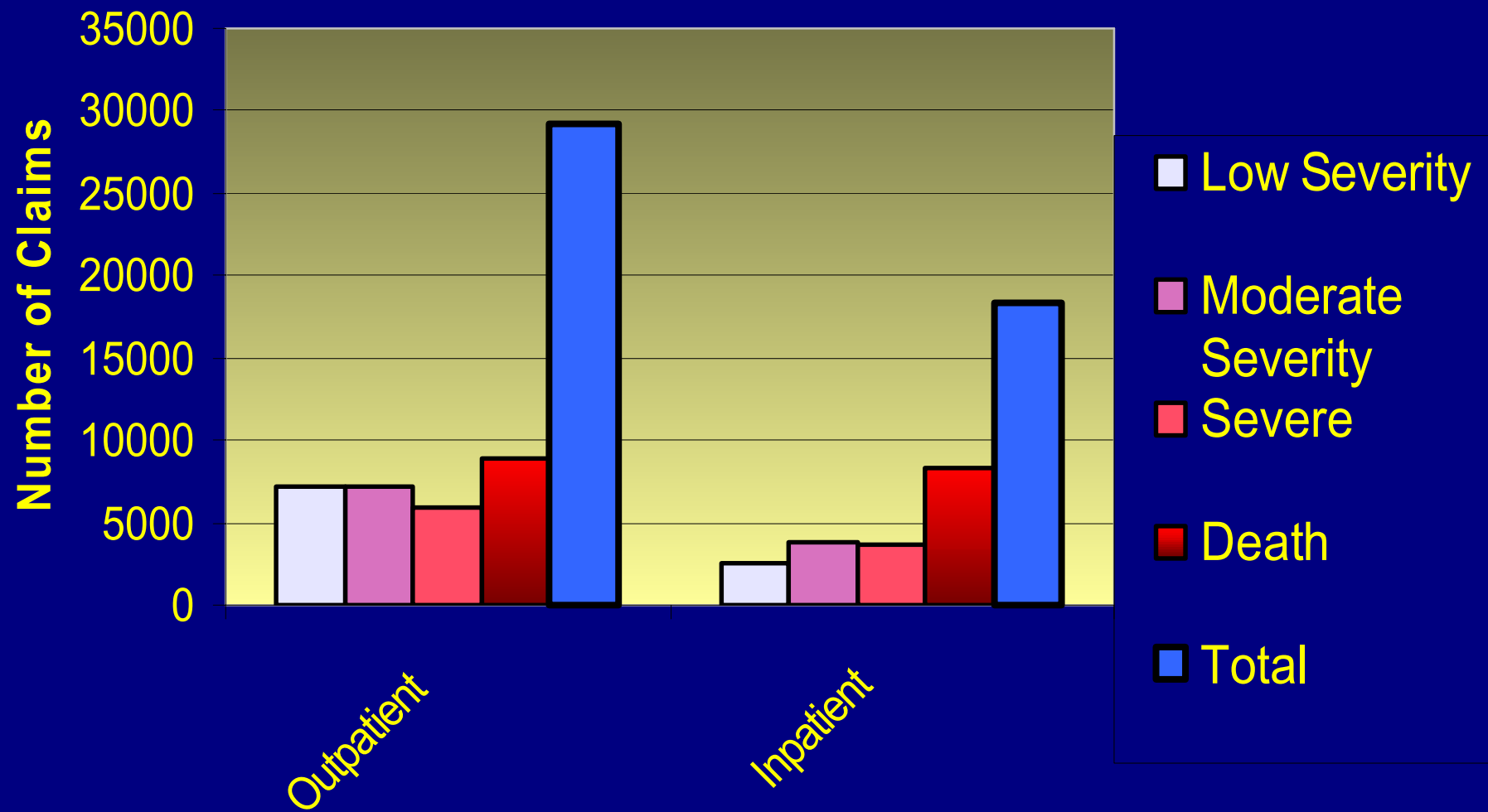
Key Messages

- The U.S. has strengths in:
 - Communication
- The U.S. shares with other countries problems in:
 - Managing investigations
 - Managing treatments, especially medications
- The U.S. can learn from other countries having fewer problems in:
 - Managing patient information

Current Safety Studies

- National Research Network
 - Study of Physician, Patient, Staff reported errors (AHRQ)
 - Study of laboratory errors (AHRQ)
- Learning from International Networks About Errors and Understanding Safety (LINNAEUS)—7 country collaborative
 - Toxic Cascades Analysis
 - Information Technology as cause and cure
- Malpractice Database Study (Physician Insurers Association of America)

Physician Insurers Association of America



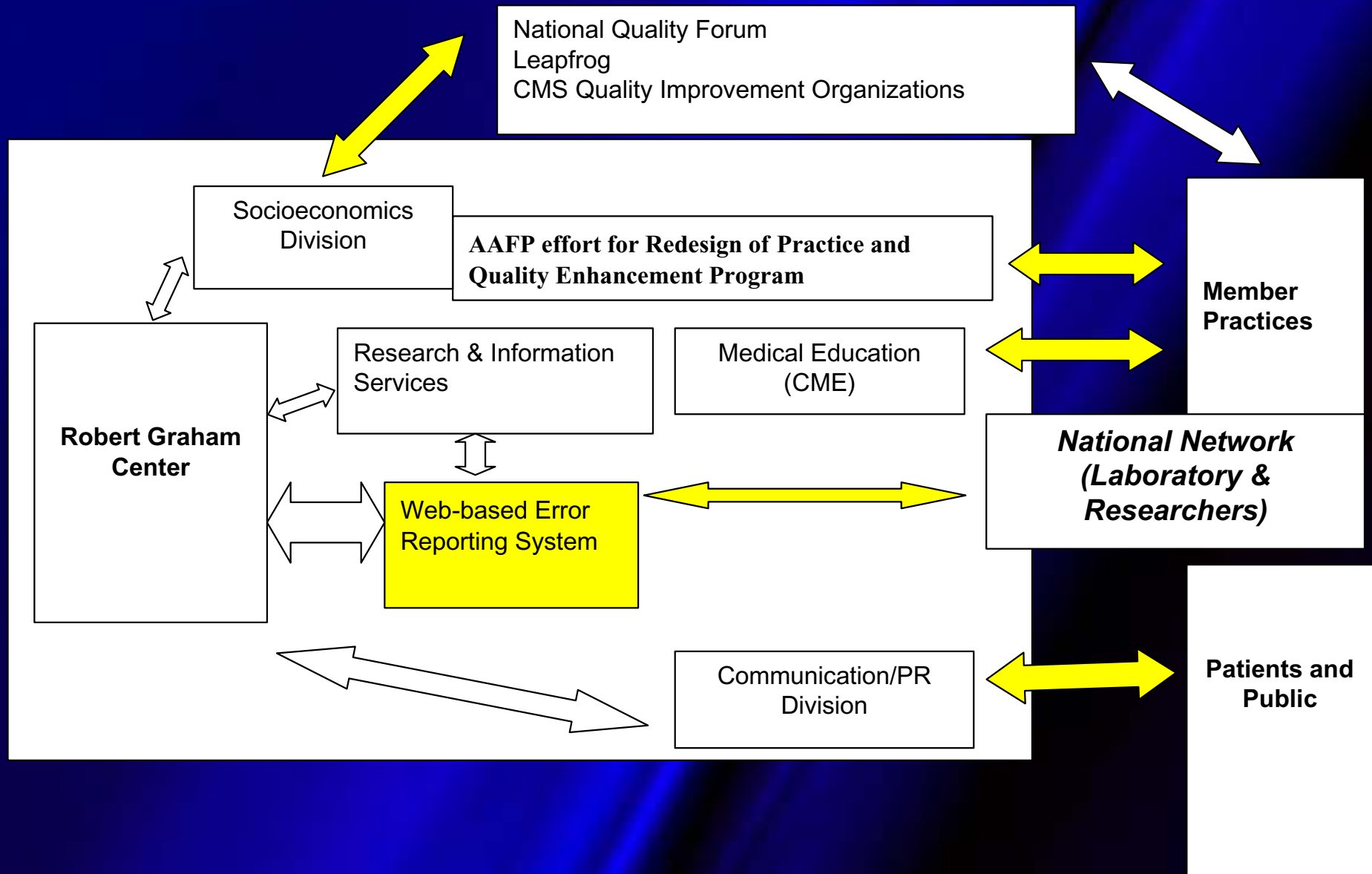
PIAA Primary Care Claims

Laboratory Claims	Low Severity	Moderate Severity	Severe	Death	Total
# Cases	49	47	52	73	203
	22%	21%	24%	33%	100%

Indefensible Laboratory Errors	Low Severity	Moderate Severity	Severe	Death	Total
# Cases	13	18	15	18	64
	20%	28%	23%	28%	100%

The AAFP Quality Improvement Engine

- On-line Quality Improvement Program
- New Physician-IT and Physician-QI positions
- Open-source EHR with other groups
- Collaborating with CMS about Quality Measures
- National Quality Forum, Leapfrog
- Future of Family Medicine Project



Thanks!

From the American Academy of Family
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Center